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HARVARD SCHOOL OF

DENTAL
MEDICINE

1962-1963

*with an announcement
for 1963-1964*

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MAIN ENTRANCE TO THE DENTAL BUILDING, LONGWOOD AVENUE, BOSTON

1962 — 1963

with an announcement

for 1963-1964

HARVARD SCHOOL OF
DENTAL
MEDICINE



General Information
and
Announcement of Courses

188 LONGWOOD AVENUE
BOSTON 15, MASSACHUSETTS

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Dental Education at Harvard University

THE dental school established at Harvard University in 1867 was the ninth such school and the first university dental school in the country. From its inception it has been closely affiliated with the Harvard Medical School, which has been in existence since 1782. It is interesting to note that an invitation from the Medical School to a group of Boston dentists led to the formation of the school. On March 29, 1867, the medical committee gave the following reasons for this step:

“Dentistry has become with the past quarter of a century a most important art, a knowledge of which supposes not only mechanical skill, but a thorough acquaintance with the processes of dentition, physiologically and pathologically considered. Hence arises the necessity for a knowledge of the general principles of anatomy, physiology, surgery, chemistry, and materia medica, to which should be added some knowledge of the theory and the practice of medicine. A medical school already established is therefore the best place at which these various studies can be attended to.”

The present plan of education evolved from a reorganization of the Harvard Dental School in years just preceding World War II. The Harvard School of Dental Medicine offers a four year course which is fully approved by the Council of Dental Education of the American Dental Association and which leads to the Doctor of Dental Medicine degree. The aim of the program is to provide a broad background which will enable a graduate to move easily into general practice, advanced training for specialty practice, teaching or research.

A unique feature of the program is that dental students take

full courses with their medical colleagues in all the basic medical sciences: anatomy, physiology and biological chemistry in the first year, and bacteriology, general pathology, pharmacology, pathophysiology, medicine and surgery in the second year. During these two years, the Harvard medical and dental students meet as a combined class.

The third and fourth years are almost wholly given over to clinical areas with the bulk of the time spent in the School clinics. Hospital teaching, which occupies a considerable portion of the second year, continues through the clinical years with the emphasis placed on diagnosis and treatment of diseases of the oral cavity. Students rotate through the dental clinics at the Massachusetts General, the Children's, the Peter Bent Brigham and Boston City Hospitals. In addition to its own staff and those of the Medical School and the teaching hospitals, the dental school draws for instruction upon the faculties of the Harvard School of Public Health and the science departments of the University in Cambridge.

To familiarize them with dental research, the students are introduced to the various studies in progress in the laboratories of the School and the Forsyth Dental Infirmary. Here the staff conducts investigations in the chemistry and physiology of teeth and oral tissues, the effects of dietary constituents and hormones on growth and development, the use of radioactive isotopes, the microbiology of mucous membranes and other related subjects. Students are encouraged to take part in these activities during their free time and each one is required to undertake an elective project in clinical and laboratory research.

Individual instruction, group conferences and seminars have replaced many of the lectures. In the School's clinic as well as in the hospital and laboratory, the small teaching groups allow individual supervision and flexible methods of instruction. Under this system the teaching can be adapted to the needs of the particular student, and he in turn can progress as rapidly as he assimilates course material.

With such rich opportunities open to him, it is literally true

that a student's own initiative is the largest determinant of just how much education he will acquire at the School of Dental Medicine. Whether he goes on to a specialty, general dentistry or dental education and research, his background — strong in the basic sciences and sound in clinical dentistry — provides him with excellent credentials. The recipient of the degree of D.M.D. from the Harvard School of Dental Medicine is eminently well qualified to meet the challenge of dentistry in the future.

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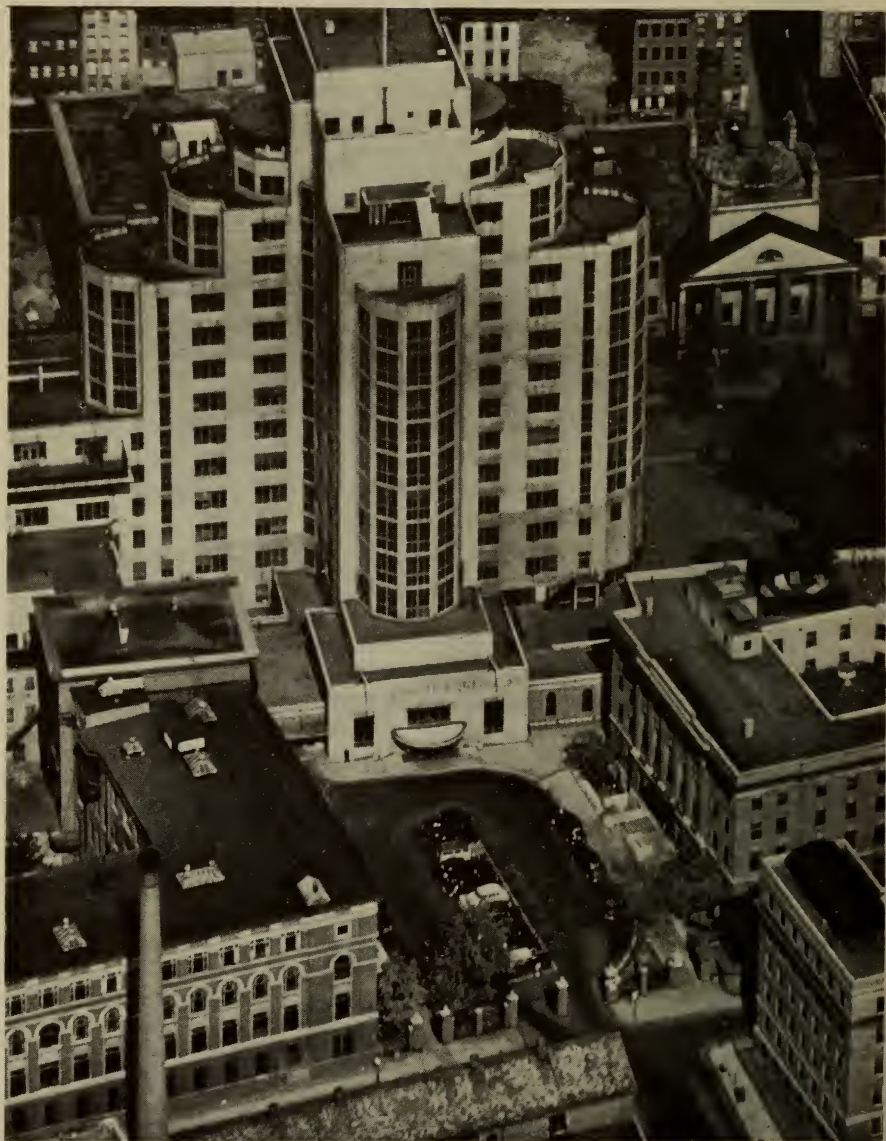
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MASSACHUSETTS GENERAL HOSPITAL

General Information

Buildings

The Dental Building on Longwood Avenue contains the Office of the Dean, the Dental Clinic, Dental Library, lecture and conference rooms, and research laboratories. Also included are individual laboratories for fellows in training, animal quarters, controlled temperature rooms, and laboratory areas for studies involving use of radioactive materials. The Clinic facilities consist of a main clinic with thirty-two chairs, each with instrument cabinet and chair-side bench equipped for general dentistry; a dental laboratory, technique laboratory and preparation room; a dental surgery clinic with two chairs and recovery room; and an X-ray and photography clinic with two chairs. Special instruments include electron microscopes, Airdent units as well as individual high-speed air turbine handpieces for fourth year student use. In addition, medium speed rotating instruments of all existing varieties are available for use by the third year students.

Next door are the five large buildings of the Medical School. Building A (Administration) contains the administrative offices of the Medical School, the main Medical Library, and the Warren Museum. Building B accommodates the Departments of Anatomy and Pharmacology. Building C provides space for the Departments of Physiology and Biological Chemistry. Building D is occupied by the Departments of Bacteriology, Pathology, Preventive Medicine, and also laboratories of the Department of Medicine. Building E houses the Departments of Legal Medicine and Tropical Public Health.

Hospital Facilities

The Massachusetts General Hospital. This is a general hospital founded in 1811 and ever since associated with the Medical School. There are services in medicine, dentistry, surgery, pediatrics, derma-

tology, genito-urinary diseases, orthopedics, gynecology, neurology, neurosurgery, anesthesia, and psychiatry, all of which are used in giving instruction in these special subjects in the Schools of Medicine and Dental Medicine.

The Children's Hospital is located on Longwood Avenue adjacent to the Medical School. This is a generalized hospital for the care of the younger age group. The hospital maintains pediatric, surgical, neurosurgical, dental, orthopedic, radiologic, psychiatric, and pathological services with their associated specialties. All services are available for teaching purposes.

The Peter Bent Brigham Hospital, equipped for teaching in physical diagnosis, medicine, surgery, radiology, pathology and dentistry, is situated on grounds adjacent to the Medical School buildings. The chiefs of services are members of the Faculty of Medicine. Also located within the hospital are the offices of the Medical Area Health Service.

The Forsyth Dental Infirmary, located at 140 The Fenway, became affiliated with the School of Dental Medicine in 1955. In addition to the large general clinic there are services in orthodontia and pediatric dentistry, and research facilities in bacteriology, biochemistry, physiology, histology and anthropology.

Hospitals used for teaching in the second year include the Massachusetts General Hospital, the Children's Hospital, the Boston City Hospital, the Peter Bent Brigham Hospital, the Beth Israel Hospital, Boston Lying-in Hospital, the New England Deaconess Hospital, the Free Hospital for Women and the South Huntington Avenue Veterans Hospital. Further description of all these hospitals will be found in the combined catalogue of the Medical School and the School of Dental Medicine.

Libraries

The School of Dental Medicine Library, with facilities for 50 readers is open from 9 A.M. until 5 P.M. weekdays, 7 P.M. until 10 P.M. Monday through Thursday evenings, and 9 A.M. until 12 noon two Saturdays a month. The School library is supplemented by the library of the Forsyth Dental Infirmary. The joint library of the

Medical School and the School of Public Health is on the second floor of the Administration Building, and in the other buildings are branch libraries. This library is open from 9 A.M. until 10 P.M., on Saturdays from 9 A.M. until 5 P.M., and on Sundays from 2 P.M. until 6 P.M.

Notices of official events, including lectures, concerts, movies, art exhibits, etc., are published weekly by the University in the *Harvard University Gazette*.

Requirements for Admission

Candidates for admission to the first-year class must present evidence satisfactory to the Committee on Admission, not simply that they have passed the courses necessary to fulfill the requirements, but also that their college work and other credentials have been of such character as to give promise of work of high quality in the dental course. Outstanding students may, in selected cases, be considered acceptable for admission after only two years of college work. Excellent students with three years of preparation are accepted, but in practice, the Committee strongly recommends four years of college. In all instances, the final judgment as to the admissibility of any student rests with the Committee on Admission. Inability to finance a dental education should not be a deterrent to application since the resources of the School are sufficient to cover justifiable need.

In general, the School considers for admission to its classes students in good standing in arts or in sciences in colleges listed as approved in the *Higher Education Directory*, published by the Office of Education of the U.S. Department of Health, Education and Welfare.

Applications may be obtained at the Dean's Office after June 1 of the year preceding the expected date of admission. Applications will not be considered from candidates who have been refused admission on two prior occasions.

Required Courses

In order to meet the present legal requirements of state licensing boards and to have the needed basic understanding, the following specific college credits must be secured:

Biology: The student must take a general course in biology which

includes adequate laboratory work and which should emphasize the structure, function, natural history and evolution of plants and animals. The combination of one semester of zoology and one semester of botany is equally acceptable, but bacteriology, human anatomy and histology will not be considered as meeting the biology requirements. A satisfactory course should show college credits of at least eight semester hours.

Chemistry: The student should acquire a sound understanding of the basic principles of chemistry, both inorganic and organic. He must have taken not less than 16 semester hours of chemistry, which should be about equally divided between inorganic and organic chemistry. Biochemistry will not be accepted as part of these requirements.

To be adequately prepared for the work in chemistry in the dental school, it is desirable that the student has had experience with the application of chemical laws to gases and solutions, and some experience with quantitative techniques (particularly volumetric analysis).

Physics: The student should acquire an understanding of the general principles of physical laws and phenomena and have experience in mechanics, heat, light, sound and electricity. College credit for eight semester hours should be secured.

These science courses must be accompanied by laboratory work taken as a part of the college courses. A semester hour, as used above, we consider in general to be one hour of lecture or recitation, or two hours of laboratory work per week, for one-half year of sixteen weeks.

English: The student must have facility in the use of English in speech and composition. A one year course in which composition is included is acceptable but two years of college English are recommended. Even though, in the judgment of the authorities of the applicant's college, he has obtained enough training in secondary school to be exempted from the usual beginning course in English, an advanced course in English is strongly recommended.

Mathematics: It is recommended but not required that the student take a one year course in college mathematics which includes some calculus.

The Dental Aptitude Test

The Dental Aptitude Test is a requirement for admission to this school. It is administered in October, January and April. Preferably the test should be taken at least ten months prior to the expected date of matriculation. Application blanks may be secured from the Division of Educational Measurements, Council on Dental Education, American Dental Association, 222 East Superior Street, Chicago 11, Illinois.

Interviews

Interviews are an important part of the total evaluation of candidates for admission to the School and may be required of any candidate.

In accordance with the policies of the American Association of Dental Schools, no provisional or final acceptance for admission will be given before November 1 of the academic year prior to matriculation. After being given an acceptance, the applicant will be allowed a waiting period of 30 days (the same date in the month after acceptance) before being required to make a deposit of \$50. After April 15, the waiting period will be at the discretion of the School. The student may expect that all dental schools will adhere to these policies.

ADMISSION TO ADVANCED STANDING

The third year class may be increased by a small number of transfer students who have completed the equivalent of the first two years at the Harvard School of Dental Medicine. Vacancies in the second year class may also be filled by transferring students. No students may transfer to the fourth year class without a special vote of the Faculty in each instance. Only students of high scholastic standing will be considered. They must be recommended as promising candidates by the Dean of the school from which they come. Full credit for work done elsewhere will be allowed as a rule, but in certain cases additional work may be required. Ordinarily such requirements can be completed during the summer recess preceding transfer. All the requirements for the first year class must have been fulfilled by applicants for advanced standing.

ADMISSION FOR SERVICEMEN

The Harvard School of Dental Medicine welcomes inquiries regarding future applications from men who are now on active duty with the armed forces. The qualifications for admission remain essentially the same for veterans as for civilian applicants. Before the acceptance of a veteran can become final, the applicant will need to submit photostatic copies of discharge papers or similar evidence of honorable release. Where available the applicant should file also a copy of his "Separation and Qualification Record" on which is listed in detail his service record and training. If the Committee does not act favorably on an application, certifications furnished by the applicant may be returned at his request.

For matters relating to veterans' affairs and not connected directly with the School of Dental Medicine, the applicant should feel free to write to Veterans' Affairs, Comptroller's Office, Lehman Hall, Cambridge 38, Massachusetts.

General Regulations

In order that the time of study shall count as a full year, students must register on the first day of the session. All students will be notified during summer recess of the exact time and place of registration.

A fee of \$10 is charged for late registration.

Promotion Boards

First and second year students. Promotion Boards for the first and second years are composed of representatives from each department in the Medical School responsible for grading the student, plus the Dean and Assistant Dean of the School of Dental Medicine for Student Affairs, who are non-voting members. Promotion from one class to another is contingent upon the satisfactory completion of the required work of each year. In each course, when indicated, students will be informed by their instructors as early as possible when the progress of their work is unsatisfactory. Opportunity will be given to students to appeal the decision of a Promotion Board either at a special meeting or at the next regular meeting of the Board. Appeals must be

sent to the Chairman of the Promotion Board, Harvard Medical School, and to be valid, be received by him within two weeks after the issuance of a Promotion Board's notice of formal action.

Third and fourth year students. The Promotion Boards in the School of Dental Medicine are composed of staff members representing the various divisions of dental teaching. The duties consist of evaluating unsatisfactory student performance and acting to correct such performance. The Boards will be guided by the following general rules:

A student who fails two major courses may be asked to withdraw from school or repeat the year. A student who fails one major course and whose average for the other courses is *D* will be asked to repeat the year's work or withdraw from school. A student whose average for the year's work is *D*, at the discretion of the Promotion Board, may be asked to withdraw from school, to repeat the year's work, or be promoted on probation. A student whose progress is unsatisfactory at any time throughout the school year may be placed on probation. A probation can be removed only if the student demonstrates satisfactory improvement. A student on probation will not be eligible for promotion. A student repeating a year must take all major courses. He may be excused from other courses at the discretion of the department head. He must demonstrate satisfactory improvement in each major course in order to be considered for promotion or graduation.

Examinations

Final grades in each course will be based upon such examinations or other tests as are determined by each department. Grading is on the scale of A, B, C, D, and E (denoting failure).

A subcommittee on examinations will give a *comprehensive oral examination* at the end of the senior year and assign a mark for performance in this examination.

A Committee on Examinations composed of faculty members in charge of courses given during the third and fourth years will assign candidates for the D.M.D. a final mark. It will recommend to the Faculty of Medicine, of which the School of Dental Medicine is a part, those who pass and are otherwise qualified for the degree and for honors.

Withdrawal from the School

The Faculty reserves the right to require the withdrawal of any student at any time when, in the opinion of his instructors, he is not competent to pursue his assigned course of study, or if the Faculty of Medicine determines that he is for any reason unfit to continue as a student in the School. In addition, any student who is absent without leave from scheduled courses for more than a total of 30 days during the academic year will be required to withdraw from the School.

A student may withdraw voluntarily from the School upon application to the Dean. Application for reinstatement by any student must be received in writing at least four months prior to the date of readmission and for favorable action must be approved by the Committee on Admission.

For additional regulations see the combined catalogue of the Schools of Medicine and Dental Medicine.

Degree of Doctor of Dental Medicine

Every candidate for the degree of *Doctor of Dental Medicine* at Harvard University must be at least twenty-one years of age and of good moral character. He must have fulfilled all the requirements for admission to this school; give evidence of having studied at least two full years in basic health sciences comparable to those offered in the first two years of this school and two years in a recognized dental school, of which one year must be spent in the regular fourth year course of the Harvard School of Dental Medicine. He must have passed all the required examinations and have satisfactorily completed the minimum requirements for work in the various laboratories and clinics.

The degree of Doctor of Dental Medicine *cum laude*, *magna cum laude* or *summa cum laude* may be given to students of highest general rating in the class on recommendation of the Committee on Examinations. The degree is also awarded, where appropriate, with honors for a thesis in a special field.

Application for the D.M.D. degree, on a form provided by the Dean's Office, must be filed at that office prior to April 1 in order for

the student's name to be placed on the list of degree candidates at Commencement.

Dormitory

Vanderbilt Halls, the student dormitory, has accommodations for 305 men and 20 women medical and dental students. The majority of the rooms are designed for one occupant, but there are also a number of suites for two or more persons. The price of rooms ranges from \$250 to \$505 for the academic year. Application forms for rooms in Vanderbilt Halls will be sent to all new students approximately four months before registration day. Students are permitted to re-engage their rooms for the following year by signing lease cards at the Medical School Dean's Office. The dormitory has squash courts and a gymnasium which are open to members of the teaching staff and

INDIVIDUAL INSTRUCTION



students of the School of Dental Medicine and the Medical School. In addition the Schools have tennis courts and an outdoor exercise field.

The Schools own a parking lot for automobiles behind the hall. No charge is made for this facility, and the Schools assume no responsibility for loss or damage to automobiles or other property left in the lot.

The dormitory dining hall is open for all members of the Schools. *First and second year students* living in Vanderbilt Halls will be required to pay *full board* for 21 meals a week throughout the academic year (\$620).

Apartments for married students may be found close to the School.

Student Health Service

The Harvard Medical Area Health Service at the Peter Bent Brigham Hospital, 721 Huntington Avenue, supplies medical care to the students. The clinic is open daily except Saturday afternoons, Sundays and holidays from 8:30 A.M. to 5:00 P.M.; office hours for the physicians are 8:30 to 10:00 A.M. and 1:00 to 2:00 P.M. However, one of the staff is available during the day by appointment. For emergency care at night and on holidays, the Emergency Service of the Peter Bent Brigham Hospital is open at all times, and one of the staff of the Clinic is available by telephone.

Dental students with minor illnesses requiring rest in bed, as well as more serious cases, will usually be hospitalized at the Peter Bent Brigham Hospital. Upon registration, each student receives a booklet which describes the medical services available under the Health and Medical Care Program for Students. Hospital insurance is available through the plan for wives and children of married students.

Each student who is accepted for admission must submit, on a form supplied by the Dean's Office, a certified statement of successful vaccination within three years prior to registration. A complete medical examination of each new student is required at the beginning of the school year. This is conducted by appointment shortly after school opens.

Any illness necessitating absence from classes must be reported to the Health Service.

Fees and Expenses

An estimate of total yearly expenses shows that the average cost of the school year is \$3,000 for each academic year. This estimate includes tuition, medical health fee, board and room, books, laundry and incidentals.

The fees are: — For matriculation, \$5; for medical health fees, \$74 for each year; for instruction (including laboratory charges except microscope rental, breakage, damage and loss of apparatus), \$1,500. Term bills are issued approximately every two months.

Microscopes are available for rental each year. During the third and fourth year, students rent a set of dental instruments from the

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School for a nominal fee, which may vary according to the value of the instruments. Students may purchase instruments at an appreciable discount through the School if they so desire.

A deposit of \$50 is required of every new student who accepts a place in the School of Dental Medicine; this sum is to be applied on his first term bill or to be forfeited if the student does not register.

All indebtedness to the University must be paid by all candidates for degrees at least one day before Commencement.

Any student whose indebtedness to the University remains unpaid on the date fixed for payment is deprived of the privileges of the University until he is reinstated by consent of the Dean, after payment of all indebtedness. A fee of \$10 is automatically added to all bills which are unpaid by the due date. Students will be held responsible for the payment of fees until they have notified the Dean, in writing, of their intention to withdraw.

Financial Aid

Harvard School of Dental Medicine is fortunate in having substantial financial assistance available to its students. Scholarships are awarded on the basis of academic excellence, financial need or a combination of factors. Loan funds are available to all students who show suitable need and whose other financial obligations do not make it improbable that this loan will be repaid. Application for financial aid may be made at any time.

SCHOLARSHIPS

JOANNA ALFORD BEQUEST (1785). Mrs. Joanna Alford. To be used for scholarships for those students who are under low and indigent circumstances.

LAWRENCE WILLS BAKER (1956). Friends of Lawrence Wills Baker, D.M.D. 1898. A scholarship for a student who has shown aptitude and interest in the field of orthodontics.

DWIGHT M. CLAPP (1926). Clara Josephine Clapp, in memory of her husband, Dwight M. Clapp, D.M.D. 1882. For the education of a male student born in Massachusetts, preferably one who has a college education or training of a classical character.

DENTAL SCHOOL ALUMNI SCHOLARSHIP (1937). Gift of the Class of 1912.

THOMAS ALEXANDER FORSYTH (1929). Thomas Alexander Forsyth. Scholarship to two deserving men, awarded continuously until they have completed the course.

GENERAL SCHOLARSHIPS. Available to students in any department of the University. Recipients are chosen by the Committee on General Scholarships on the recommendation of the Dean.

HARVARD DENTAL ALUMNI (1949). Selection of a candidate shall be based upon character, scholarship, and promise within the field of dentistry. The award may be offered as a scholarship to an undergraduate student of the third or fourth year or as a fellowship for graduate work.

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HARVARD SCHOOL OF DENTAL MEDICINE NATIONAL SCHOLARSHIP (1960). Awarded to one or more members of each class entering the School of Dental Medicine. The selection of recipients is based on academic promise without reference to financial need. The amount of the stipend, however, is in proportion to the student's actual necessities, except that a certain minimum award is granted to all prize scholars. Each student accepted by the Committee on Admission is considered as a candidate for a National Scholarship. *An individual application cannot be made.* The prize scholarship is awarded for one year. If the student maintains a satisfactory record, the scholarship will be renewed annually.

EUGENE HANES SMITH (1920). Alumni Association. To be awarded to a third or fourth year student who has been a student in regular standing during the first and second years.

PETER E. STRAUSS (1922). Emily R. M. Strauss, in memory of her husband.

JOHN E. THAYER SCHOLARSHIP (1857). Bequest of John E. Thayer, the income to be paid to the best scholar having financial need in each school of Harvard University.

The Committee on General Scholarships administers the following preferential scholarships, which are available to all students in the University. Specific application must be made to the Dean's Office early in February, unless otherwise stated, for any one of these awards.

JOHN AUSTIN AMORY, CLASS OF 1907, SCHOLARSHIP FUND (1954). Gift of Roger Amory, Class of 1910, to establish "the John Austin Amory, Class of 1907, Scholarship Fund . . . to provide one or more scholarships for candidates for a degree in any college or graduate school of the University." Under certain conditions a grandson by male line of John Austin Amory, '07, may be entitled to the income.

BAXENDALE SCHOLARSHIP (1928). Bequest of Esther M. Baxendale. Preference: (1) descendants of Alan Bedford Hudson; (2) students of the name of Baxendale or Hudson; (3) students from Brockton or Bourne, Mass.

BRIGHT LEGACY (1880). Bequest of Jonathan Brown Bright. For descendants of Henry Bright, Jr., of Watertown, Mass., who bear the name of Bright, registered in any department of the University.

DANIEL A. BUCKLEY BEQUEST (1905). Bequest of Daniel A. Buckley of Cambridge, Mass. For needy and worthy graduates of Latin, High and other public non-sectarian schools in Cambridge.

GODFREY L. CABOT, INC. SCHOLARSHIP FUND (1955). For scholarships and grants of "aid" for students in any department of the University. A son of an employee of Godfrey L. Cabot, Inc. or of its subsidiary and associated companies, who applies for aid or a scholarship, may be preferred in the awards from this fund.

MADAME MARGUERITE CARRIÈRE FELLOWSHIP FUND (1959). Residuary bequest of Louis A. Freedman in memory of his wife. The fellowship is to be awarded in alternate years to a graduate student at Harvard University for study in France and to a French graduate student for study at Harvard University. It is hoped that the aim of the American student in France will be to study the French traditions and attitude so as to better understand and explain the French reaction to the problems that concern both countries and that similar aim will guide the French student in America.

VICTOR EMANUEL CHAPMAN MEMORIAL (1957). Several donors. In memory of Victor Emanuel Chapman, A.B. 1913, killed in World War I. For a French youth (or youths) for study in any department of Harvard University. Applications should be made through the Institute of International Education, 1 East 67th Street, New York 21, New York, before *February 1*. A student already enrolled at Harvard should, however, apply through the Dean's Office.

JOSEPH HODGES CHOATE MEMORIAL (1919). Gift of the Harvard Club of New York City in memory of Ambassador Joseph Hodges Choate, A.B. 1852. Awarded upon the nomination of the Vice-Chancellor of the University of Cambridge, England, to a British subject coming from that University to study in any department of Harvard University.

GEORGE CHASE CHRISTIAN MEMORIAL SCHOLARSHIPS (1936). Gift of Carolyn McKnight Christian in memory of her husband, George Chase Christian, A.B. 1895. To be awarded as National Scholarships to residents of Minnesota, for study in Harvard University, preferably the graduate schools.

MARK D. CORY SCHOLARSHIP (1954). Residuary bequest of Mark D. Cory. To be awarded to a worthy graduate of the Gadsden High School, Gadsden, Alabama, to be selected and designated by the

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faculty of said high school. Available for students in any department of the University.

CHARLES DOWNER SCHOLARSHIP FUND (1927). Bequest of Charles Downer, A.B. 1889, LL.B. 1892. For students in any department of the University in the following order of preference:

- A. Students of "English or Anglo-Saxon stock" who bear the family surname of Downer by right of birth or inheritance, and not because of adoption, preference to be given to such students who are descendants of Joseph and Robert Downer, of Wiltshire, England, who came to America about 1650. Scholarship awards under this category will be sufficient to pay for tuition, books, food, room and other incidentals in any academic year.
- B. Descendants of members of the Harvard College Class of 1889 who are in need of assistance.
- C. Residents of the State of Vermont, preference to be given to those most worthy of assistance.
- D. Students worthy of assistance and of high scholarship, preference to be given to (1) Descendants of graduates of Harvard College, and (2) Those "of that old Anglo-Saxon stock which has gone forth from New England into all parts of the United States and has been the means of giving strength and stability and character to our government."

Or, any balance of income remaining after the award of scholarships as specified in paragraphs A, B and C above may be used for fellowships for Harvard graduates of high scholarship and of rare and unusual ability who are pursuing special work either at Harvard or at any American or foreign university or school.

DWIGHT D. EISENHOWER SCHOLARSHIP FUND (1962). Gift of William A. Hinton in memory of Augustus and Maria Hinton, "the income to be used in any department by way of scholarship grants, prizes for scholarly treatises or other achievements, or otherwise."

JEAN GAILLARD MEMORIAL FELLOWSHIP (1946). Established in memory of Jean Gaillard, a student of the Ecole Centrale des Arts et Manufactures in Paris, who served as an Aspirant in the French Air Forces, was arrested by the German Gestapo, and died in the German concentration camp at Ravensbrueck April 16, 1945, a victim of Nazi inhumanity. For French youths for study in any department of Harvard University or of the Massachusetts Institute of Technology.

The incumbents from year to year are to be nominated by the Board of Directors of the Ecole Centrale des Arts et Manufactures in Paris.

LEWIS AND HARRIET HAYDEN SCHOLARSHIP FOR COLORED STUDENTS (1894). Residuary bequest of Mrs. Harriet Hayden. Open to colored students in the Medical School, the School of Public Health, and the Dental School.

CHARLES W. HOLTZER FELLOWSHIPS (1929). Bequest of Charles W. Holtzer. For young men of German birth who have received their preliminary education in German institutions of learning, to study in any department of the University. Preference is given to students in Germany at the time of application. Students in Germany may apply either through the Deutscher Akademischer Austauschdienst, Nassestrasse 11, Bonn, or the Institute of International Education, 1 East 67th Street, New York 21, New York, *before February 1*. Students enrolled at Harvard should apply through their Schools. Documentary proof of German birth and education required.

FRANK KNOX MEMORIAL (1946). Gift of Annie Reed Knox in memory of her husband, Col. Frank Knox, LL.D. (Hon.) 1942, Secretary of the Navy, 1940-44. "It is my hope that this fund . . . will play a part in an integrated program of exchange fellowships throughout the world. The Frank Knox Memorial is established because of the firm belief of my dear husband, a conviction which I share, that cooperation between the British Commonwealth and the United States of America, based upon an informed and understanding contact of the peoples of these two great countries, is an essential to international peace." Candidates shall be selected on the basis of future promise of leadership, strength of character, keen mind, a balanced judgment and a devotion to the democratic ideal. Fellowships are awarded annually to:

1. Students coming from one of the following British Commonwealth countries: United Kingdom, Australia, New Zealand and Canada. Students should apply through their university *before November 1* of the year preceding award.
2. Recent graduates of Harvard College, or students who have completed at least one year of study in one of the Harvard graduate schools, for study in any one of the countries listed above.

LINCOLN SCHOLARSHIP (1876). Residuary bequest of Miss Levina

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Hoar. Preference: needy and worthy students from Lincoln, Mass.

FREDERICK E. PARLIN FUND (1928). Bequest of Albert Norton Parlin. Preference: natives of Malden or Everett, Mass.

WILLIAM PENNOYER BEQUEST (1670). Bequest of William Pennoyer of England, for two fellows and two scholars; one preferably to be a descendant of Robert Pennoyer (a brother of William) and the other . . . [from] . . . New Haven [Colony]. Preference to be given to undergraduate descendants. Pennoyer descendants in the graduate schools may apply for the Pennoyer Scholarship by filing such application directly with the College Admission and Scholarship Committee. Certified genealogical records required to establish claim.

ARISTIDES EVANGELUS PHOUTRIDES MEMORIAL (1925). Friends of Aristides Evangelus Phoutrides, A.B. 1911, Ph.D. 1915. Available for student of Greek birth or of Greek parentage in any department of the University.

PRINCETON FELLOWSHIP (1910). Gift of Cleveland H. Dodge. Preference: a graduate of Princeton University, for his first year of study only, in one of the graduate departments of Harvard University. Applications should be made to the Dean of the Graduate School of Princeton University before *January 20*.

LEON W. REDPATH SCHOLARSHIP (1938). Bequest of Mrs. Ellis W. Redpath in memory of her son, Leon W. Redpath, A.B. 1898. For deserving students from the state of Ohio, with preference to students from Stark and Tuscarawas Counties.

FRANKLIN REYNOLDS FUND (1925). Residuary bequest of John F. Reynolds. For students who are natives of Marblehead, Mass.

JAMES A. RUMRILL SCHOLARSHIPS (1909). Gift of Anna Chapin Rumrill in memory of her husband, James Augustus Rumrill, A.B. 1859. For a properly qualified graduate of a college or university in Virginia, North Carolina, South Carolina, Florida, Georgia, Tennessee, or Kentucky, who has been admitted as a first year student in one of the graduate departments of Harvard University.

PETER BROOKS SALTONSTALL '43 MEMORIAL (1947). Established by Senator Leverett Saltonstall in memory of his son, Peter B. Saltonstall. To assist a worthy student from the Hawaiian Islands and those islands west of Hawaii, including New Zealand, the Fiji Islands and Australia, and also Japan, South Korea, Hong Kong, Formosa, the Philippine Islands, Vietnam, the East Indies, Indonesian Islands, Sumatra and

Thailand. The purpose of this memorial is to further the education, the health and welfare of the peoples inhabiting the above named regions of the far Pacific. Applications due *February 1*.

ERNEST FREDERICK SLATER SCHOLARSHIP (1955). Bequest of Ernest F. Slater. The income to be awarded as scholarships in any department of Harvard University to deserving (financially or otherwise) young men who are qualified residents of (a) the city of Orangeburg, South Carolina; (b) the state of South Carolina; preference to be given descendants by birth or adoption of Edward Frederick Slater regardless of their residence. No scholarship will be awarded to students in their first year at the University.

CHARLES H. SMITH BEQUEST (1947). Residuary bequest of Charles H. Smith. For awards to students in any department of the University according to the following order of preference:

1. a. Graduates of public high schools in Providence, Rhode Island, who are of scholarship rank.
- b. Graduates of public high schools in Providence, Rhode Island, who are below scholarship rank but who are considered eligible for financial aid.
2. Graduates of other (non-public) secondary schools in Providence, Rhode Island, who are of scholarship rank.
3. Any residents of Rhode Island not indicated above who are of scholarship rank.

WILLIAM STOUGHTON BEQUEST (1701). Bequest of Lieutenant Governor William Stoughton, A.B. 1650. Preference: (1) students from Dorchester or Mattapan, Mass.; (2) students from Milton, Mass.; (3) any needy and deserving student.

AUGUSTUS CLIFFORD TOWER (1927). Gift of Mrs. Augustus Clifford Tower. To be awarded annually to a French student for study in any graduate department of Harvard University and to a graduate of Harvard College who may be either a graduating senior or a student enrolled in one of the graduate departments of the University for study in a French university, preference to be given to a student of Anglo-Saxon descent.

JENS AUBREY WESTENGARD FUND (1954). Bequest of Rebecca Aubrey Westengard. "The income is to be applied . . . to the further education of students of promise and standing in any department of

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the University by providing them with facilities for further education in Europe, Britain or South America, by travel or study, or to the further education of students of promise and standing in any of those countries, by providing them with facilities for further education by travel and study in this country, preferably by study in some department of Harvard University."

1902 WORLD WAR MEMORIAL (1923). Gift of Class of 1902, in memory of their classmates, André Cheronnet-Champollion, Edward Ball Cole and Elbert Walker Shirk. Preference: deserving descendants of the members of the Class of 1902. Open to students in any department of the University, with preference to undergraduates.

The scholarships of the present are the result of the generosity and faith of members of a former generation. Current recipients of scholarships have an opportunity to render a service to future generations by refunding at some time after graduation a part or all of the scholarship money they have received.

LOAN FUNDS

AMERICAN DENTAL ASSOCIATION—FUND FOR DENTAL EDUCATION DENTAL STUDENT LOAN FUND (1962). Established by the Fund for Dental Education through a grant from the American Dental Association. Available without restrictions to incoming and enrolled students.

THE CHRISTIAN SOLDIER FUND (1925). Established by Miss Caroline F. Anderson for promising dental students. The loan carries no interest but the recipient must sign a note obligating him to repay the loan not later than five years from the date of the note.

DENTAL ALUMNI LOAN FUND (1927). Established and maintained by the Dental Alumni Association for financial aid to worthy students.

LUCINDA DAVIS FERNALD FUND (1936). A small fund, the gift of Adelbert Fernald, D.M.D. 1896, to be loaned to deserving New England-born students of good character.

INTERNATIONAL COLLEGE OF DENTISTS (U.S.A. SECTION) STUDENT LOAN FUND (1962). A revolving loan fund established by the U.S.A. Section of the International College of Dentists to help meet the needs of senior dental students.

ROBERT T. MOFFATT FUND (1925). A small fund from various

contributors in memory of Dr. Robert T. Moffatt, D.M.D. 1895, for the benefit of needy and deserving students.

SCHOOL OF DENTAL MEDICINE LOAN FUND (1953). An appropriation from the School's funds to establish additional loan money for needy students.

SCHOOL OF DENTAL MEDICINE REVOLVING LOAN FUND (1952). Recognizing the need for student loan money in the School, the President and Fellows of Harvard College authorized an appropriation to establish this fund.

Unless otherwise indicated, interest at the rate of 1% per year will be charged on loans, payable on the first of July and continuing at this rate until the July 1st three years after the borrower's graduation from the School. Thereafter, interest at the rate of 4½% per year will be charged annually on July 1st on outstanding loans. Where the student borrower, for any reason, leaves the School prior to graduation, interest at the rate of 1% will be charged from the date of loan until the date of separation from the School and interest at the rate of 4½% will be charged thereafter.

Notes are payable at any time but become due on July 1st five years after graduation.

STUDENT EMPLOYMENT

A limited amount of outside work can be done without taxing the student's health and scholarship. The Dean's Office makes an effort to assist students in obtaining part-time work during the college year and full-time work during the summer vacation.

PRIZES

HARVARD DENTAL ALUMNI MEDALS (1953). The Harvard Dental Alumni Association awards annually its gold and silver medals for all-around scholastic excellence.

HARVARD ODONTOLOGICAL SOCIETY (1949). The Harvard Odontological Society each year presents a Certificate of Merit to the best Senior Seminar Essayist of that year. This senior is selected by the Awards Committee of the School of Dental Medicine.

DR. GRACE MILLIKEN (1950). An award given annually when practicable, but at least once in three years, for an outstanding essay on the general subject of dental health.

HONORARY FRATERNITY

OMICRON KAPPA UPSILON (1914). A national dental honorary fraternity organized to encourage a high grade of scholarship. Usually three members of the senior class are elected each year on recommendation of the Dean.

Postdoctoral Training Opportunities

THREE-YEAR POSTDOCTORAL FELLOWSHIPS

The Harvard School of Dental Medicine, in collaboration with the Forsyth Dental Infirmary and the affiliated clinics at the Massachusetts General Hospital and Children's Medical Center, offers a three-year program of advanced postgraduate study intended to prepare a limited number of individuals for careers in academic dentistry. An applicant must be a graduate of high scholastic standing from an accredited dental school and, on the basis of his interests, accomplishments and recommendations, appear to offer exceptional promise as a future scholar in dentistry.

Highly individualized to meet the needs of the particular student, the objective of the program is to provide training in investigative work in a biological field, advanced experience in the clinical field of choice, and an introduction to teaching. Each Fellow is under the personal sponsorship of one or two staff members whose interests coincide with those of the student. The clinical areas in which training is offered include orthodontics, periodontics, dental medicine and pedodontics. To the extent required for the individual Fellow opportunity for supplementary basic science courses in other departments of Harvard University will be made available. Previous postgraduate training, for example, an internship or residency in one of the associated clinics or equivalent training elsewhere, will be taken into account in planning the individual program.

A certificate is awarded in recognition of successful completion of the program.

DENTAL MEDICINE

Stipends will be determined on an individual basis in accordance with experience, dependents and special needs.

Applications may be sent at any time up to February 1 to the Director of Postdoctoral Studies at the Harvard School of Dental Medicine. Appointments will usually commence July 1st.

RESEARCH FELLOWSHIPS

Opportunities may be available in the departments of the School, Forsyth, or affiliated hospitals to engage in investigation as a Research Fellow under the direction of a member of the department. No university credit toward a degree is given for such work. The title "Research Fellow" is applied to individuals who are "in training" and who are considered to be advanced students. Questions concerning the appointment of Research Fellows should be directed to the professors listed under the various departments.

FORSYTH DENTAL INFIRMARY



ADVANCED CLINICAL TRAINING

INTERNSHIPS AT THE CHILDREN'S HOSPITAL MEDICAL CENTER

Annual appointments (two places) for internship at the Children's Hospital Medical Center Dental Department (a Harvard teaching unit) are available. These internships are recognized as part of the requirements for the American Board of Pedodontics. Application forms may be obtained by writing to the Chief of Dental Service, Children's Hospital Medical Center, 300 Longwood Avenue, Boston 15, Massachusetts.

INTERNSHIPS AT THE MASSACHUSETTS GENERAL HOSPITAL

Annual appointments are available (two places) for internship on the Dental Medicine Service at the Massachusetts General Hospital. This service is also affiliated with the Harvard School of Dental Medicine. Application forms may be obtained by writing to the Chief of Dental Medicine Service, Massachusetts General Hospital, Fruit Street, Boston 14, Massachusetts.

CLINICAL FELLOWSHIPS IN DENTAL MEDICINE AT THE FORSYTH DENTAL INFIRMARY

These are appointments for one year, in the field of dental medicine with an opportunity for emphasis on pediatric dentistry, restorative dentistry or periodontology. The clinic offers experience in diagnosis, treatment planning and therapeutic procedures in the various phases of dentistry. Assignments to the dental clinics of the Children's Medical Center and other hospitals are possible. An extensive graduate lecture program in oral biology is offered by the staffs of Harvard, Forsyth, and other academic institutions in Boston. Clinical lectures by the Forsyth and Harvard faculty, seminars and conferences supplement this lecture program. Fellows are encouraged during their tenure to conduct a research project, for which staff sponsorship and guidance, as well as physical facilities, are available. For further information write to the Director, Forsyth Dental Infirmary, 140 The Fenway, Boston 15, Massachusetts.

HIGHER DEGREES IN THE MEDICAL SCIENCES

The degrees Doctor of Philosophy and Master of Arts have been established for advanced work in special fields in the medical sciences.

These degrees are administered by the Faculty of Arts and Sciences, through the Division of Medical Sciences, which consists of faculty members of the preclinical departments of the Faculty of Medicine.

Those who already hold a dental or medical degree are encouraged to obtain their additional education as postdoctoral fellows (see pp. 38-39), although they may become candidates for advanced degrees if their qualifications for admission are approved and if they are prepared to fulfill such formal course requirements as may be decided by the Division. Students interested in graduate study in the Division should see the General Announcement of the Graduate School of Arts and Sciences and the pamphlet "Higher Degrees in Medical Sciences", available from the Harvard Graduate School of Arts and Sciences, Cambridge 38, Massachusetts. Inquiries should be addressed to the Chairman of the Division of Medical Sciences, Harvard Medical School, 25 Shattuck Street, Boston 15, Massachusetts.

DOCTOR OF PHILOSOPHY AND MASTER OF ARTS

The major aim of the Division of Medical Sciences is to prepare graduate students for careers of research and teaching in the basic medical sciences.

Candidates for admission should have a thorough grounding in the biological and physical sciences. This will usually be more than the minimum for admission to medical school. Advanced courses in biology, chemistry, and physics are ordinarily regarded as preferable to undergraduate courses in bacteriology, biochemistry, histology, etc. A reading knowledge of German and one other modern language is desirable but not required for admission. The candidate will be required, however, to pass an examination in German and one other foreign language before graduation.

The graduate student in the Division devotes a major portion of his time to original experimental investigation which he undertakes in conjunction with formal courses designed as a preparation for his special field. During the period when he is taking formal courses, he may choose the type of problem which interests him most among the wide range of research activities of members of the Division.

The Division offers to entering students a new type of course, Medical Sciences 201ab, which is designed to introduce the student to the literature, experimental methods and fundamental principles associated with each of the preclinical sciences— anatomy, bacteri-

ology, biochemistry, pathology, pharmacology and physiology. The establishment of this course represents a new departure in the training for the Ph.D. degree within the Division. Studies center around the functional and morphological characteristics of cells, organs, and organ systems, and each topic selected for study is approached from the various points of view represented by the different sciences. This course is given in a laboratory specially designed to permit the integrated study required by this approach. This course will ordinarily constitute the entire program of study for first year graduate students in the Division. After completion of the course, the student may enter any one of the special fields to carry out his more advanced studies and thesis work. These advanced studies may include courses in the Departments of Biology, Chemistry, and Physics in Harvard College.

The minimum requirement for the degree of Doctor of Philosophy consists of not less than two years — at least one and a half of which must be in residence at Harvard or Radcliffe — devoted to advanced studies approved as suitable preparation for the degree by the proper department. Ordinarily three or more years are required for the completion of formal courses and preparation of a thesis. In estimating the amount of a candidate's study for the degree, the advanced work done in other graduate departments at Harvard or of other universities will be considered.

It is expected that the preparation of a thesis will require full time for usually not less than one and a half years. It must show original treatment of a fitting subject, give evidence of independent research, and be clearly, logically, and carefully written in good English. Following acceptance of his thesis, the candidate is given an oral final examination on the subject of his thesis and its relation to his special field and collateral subjects.

The minimum requirement for the degree of Master of Arts consists of a full year of residence and study. At least one quarter of the work must be more advanced than the regular introductory courses offered by the various departments, and should consist of research or individual preparation for research. In addition, each student must pass an examination in French or German. In some departments a thesis is required for the degree.

Announcement of Courses

Division of Studies for the First and Second Years

FIRST YEAR		SECOND YEAR	
	HOURS		HOURS
Gross Anatomy	245	Bacteriology	168
General Histology and Cytology	127	Pathology (including Parasitology and Neuropathology) ...	331
Cellular Biochemistry	87	Pharmacology	120
Circulatory Physiology	80	Pathologic Physiology *	538
Respiration, Kidney, and Body Fluids	168	Growth and Development:	
Gastrointestinal and Endocrine Systems	168	Biostatistics	15
Neurosciences	196	Introduction to Psychopathology	32
Somatic Growth and Development	86	Pediatrics	3
Psychic Growth and Development	30	Obstetrics and Gynecology .	18
Tutorial	36	Tutorial	15

* A multidepartmental integrated course which includes Case Taking (Medicine and Surgery) and Laboratory Diagnosis.

Descriptions of courses for the first and second years are abridged. See combined catalogue of the Harvard Medical School and School of Dental Medicine for further particulars.

General Plan of the First Two Years

In general, during the first semester of each of the first two years, individual departments introduce selected material characteristic of their particular disciplines. In the second semester of each year, the departments collaborate in the presentation of a unified approach to various problems of human biology.

In the first year, the first semester is devoted to a study of gross anatomy, an introduction to histology and cytology, and to the

fundamentals of physiology and biochemistry. During the second semester, the anatomy (macro- and micro-), physiology and biochemistry relevant to studies of the body fluids, respiration, the liver and the kidney, and the nervous, gastro-intestinal and endocrine systems are presented in an interdepartmental framework. A course entitled "Growth and Development," covering both somatic and psychic aspects is presented throughout the year.

In the first semester of the second year, the Departments of Bacteriology, Pathology and Pharmacology offer courses in their respective disciplines. A number of correlated interdepartmental exercises is also included. The last portion of the semester is devoted to chemotherapy taught jointly by the Departments of Bacteriology and Pharmacology.

During the second semester, a correlated program in pathologic physiology is given during which mechanisms of disease are presented in a unified course by members of the various clinical specialties. In addition, practical instruction in the taking of case histories and physical examinations is given on the wards and out-patient departments of the hospitals at which there are Harvard teaching units. Aspects of "Growth and Development" are again discussed throughout the year.

ANATOMY

DON W. FAWCETT, M.D., *Hersey Professor of Anatomy, James Stillman Professor of Comparative Anatomy, and Head of the Department.*

ROY O. GREEP, PH.D., S.D. (hon.), *Professor of Anatomy in the School of Dental Medicine.*

EDWARD A. EDWARDS, M.D., *Associate Clinical Professor of Anatomy.*

CHRISTOPHER O'MORCHOE, M.D., *Instructor in Anatomy.*

RICHARD E. COGGESHALL, M.D., *Research Fellow in Anatomy.*

ANATOMY A AND B. First Year.—The courses of the first year are intended to teach human anatomy, both gross and microscopic, together with the essentials of human embryology and neurology.

In the study of gross anatomy, students make a complete dissection of the human body in the first semester. Four students are assigned to the same subject, and work together during the course. The study of the skeleton is carried on concurrently with the dissection, and each student is provided with a box of bones which may be kept

throughout the course. Lectures or demonstrations serve to emphasize the clinical application of gross anatomical relations and to teach certain aspects of human biology not adequately treated in the textbooks. Special dissections made by prosectors from the second year class and various anatomical specimens and preparations are displayed to supplement the student's own dissections. Students are urged to examine these specimens carefully, and to discuss them informally with the instructors.

That part of the course in microscopic anatomy given in the first semester is designed to give the student a familiarity with the normal appearances of cells and tissues as they appear under light microscope and with their finer structure as revealed by the electron microscope. The histology presented in the second semester forms a part of the correlative teaching in which the structure, physiology and biochemistry of the major organ systems are studied. Demonstrations of fresh tissue are prepared for examination with phase contrast and interference microscopy, and special cytological and histochemical preparations are displayed to present the broad range of techniques used in morphological investigations.

Embryology is taught in conjunction with the principles of genetics in a series of lectures extending throughout the first semester.

Neuroanatomical instruction is given as a part of the section of correlative teaching designated "Neurosciences."

Lectures, demonstrations, and laboratory work. Dr. FAWCETT and Associates.

BIOLOGICAL CHEMISTRY

EUGENE P. KENNEDY, PH.D., *Hamilton Kuhn Professor of Biological Chemistry and Head of the Department.*

Affiliated:

FINN BRUDEVOLD, D.D.S., *Professor of Dentistry at the Forsyth Dental Infirmary.*

JAMES H. SHAW, PH.D., *Associate Professor of Biological Chemistry in the School of Dental Medicine.*

BIOLOGICAL CHEMISTRY A. *First Year.*—During the first semester the lectures in Biological Chemistry discuss the chemical components of living matter and the metabolic processes common to all tissues.

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Laboratory work deals with the physical and chemical concepts necessary to an understanding of living processes, and the fundamental chemical characteristics of biological compounds and enzymatic reactions.

During the second semester the lectures and laboratory work in biochemistry are interwoven with those given by the Departments of Physiology and Anatomy. In the first six weeks the Biochemistry Department will deal with the following topics: inorganic chemical composition of body tissues and fluids and physical chemical factors governing their control; the transport of O_2 and CO_2 in the blood and acid-base balance. The gastro-intestinal and endocrine systems will be studied in the second five-week period. The Department will present the chemical processes involved in digestion and absorption; the intermediary metabolism of the liver; the chemistry and metabolism of cholesterol, the bile acids, and the steroid hormones; and the regulatory effects of hormones in general on metabolism. In the third six-week period, which explores the neurosciences, certain special aspects of the chemistry and metabolism of brain and nerve are the contributions of the Department of Biological Chemistry.

Lectures and laboratory work. Dr. KENNEDY and Associates.

PHYSIOLOGY

EUGENE M. LANDIS, M.D., PH.D., S.M. (hon.), *George Higginson Professor of Physiology and Head of the Department.*

Affiliated:

JAMES T. IRVING, PH.D., M.D., *Professor of Physiology at the Forsyth Dental Infirmary.*

DAVID T. ARMSTRONG, PH.D., *Research Associate in Anatomy in the School of Dental Medicine.*

PHYSIOLOGY A. *First Year.*—The lectures of this course are designed to acquaint the student with the more fundamental aspects of physiology and to consider in detail those portions of the subject that are essential to an understanding of the phenomena of health and disease in man.

By means of laboratory exercises the student is introduced as rapidly as possible to the observational methods and techniques

available for studying function in man. Then equal emphasis is placed upon exercises illustrating in animals the experimental procedures employed for the detailed analysis of function and for the acquisition of a fundamental knowledge of physiology.

Conferences and demonstrations supplement the more formal instruction. Correlation with other medical sciences is stressed.

Lectures and laboratory work. Dr. LANDIS and Associates.

BACTERIOLOGY

BERNARD D. DAVIS, M.D., *Professor of Bacteriology and Immunology and Head of the Department.*

Affiliated:

RONALD J. GIBBONS, PH.D., *Associate in Bacteriology at the Forsyth Dental Infirmary.*

SIGMUND S. SOCRANSKY, D.D.S., *Associate in Dental Medicine at the Forsyth Dental Infirmary.*

BACTERIOLOGY A. *Second Year.*—This course consists of lectures, laboratory exercises, and conferences, designed to acquaint the student with the principles of bacteriology, virology, immunology, allergy and chemotherapy. The fungi will also be briefly considered.

The first part of the course consists of an introduction to general microbiology, including the structure, physiology, metabolism, and genetics of bacteria and bacteriophage. Attention will then be given to the agents of infectious disease, with emphasis on properties that are useful in their identification and in understanding their pathogenicity. Exercises on host-parasite relations and allergy will be correlated with pathology, those on chemotherapy will be correlated with pharmacology. Clinics held in various hospitals will introduce the student to infectious disease in man. Considerable attention will also be given to illustrating the value of unicellular organisms in studying problems common to all cells including those of man.

Part of the course, dealing with problems in the field of "oral microbiology," is presented in the form of conferences and laboratory sessions at the Forsyth Dental Infirmary.

Lectures, laboratory work, and conferences. Dr. DAVIS and Associates.

PATHOLOGY

ARTHUR T. HERTIG, M.D., *Shattuck Professor of Pathological Anatomy and Head of the Department.*

DAVID G. FREIMAN, M.D., *Professor of Pathology at the Beth Israel Hospital.*

Affiliated:

PAUL GOLDHABER, D.D.S., *Associate Professor of Periodontology.*

PATHOLOGY A. Second Year. — The second year course in pathology is planned as a systematic survey of pathology. It consists of lectures, laboratory study of pathologic histology and demonstrations of gross pathologic material, partly from fixed specimens drawn from the Warren Museum, but more extensively from demonstrations of fresh autopsy and surgical material brought from the laboratories of the affiliated hospitals. Students visit the Pathology Laboratories of the Boston City Hospital, Massachusetts General Hospital, Peter Bent Brigham Hospital, Children's Hospital, Beth Israel Hospital, the Free Hospital for Women, the New England Deaconess Hospital, Boston Lying-in Hospital and the South Huntington Avenue Veterans Hospital for participation in performance of autopsies.

Lectures are given three days in the week by the staff. The course is divided roughly, though not sharply, into general and special pathology, covering in the first part of the year basic pathologic processes, such as tissue injury and repair, inflammation, tissue responses to specific infectious agents and neoplasia. Owing to the revision of the second year curriculum, special pathology is now integrated with the other second year courses and designated as "Pathologic Physiology." Seven organs or systems will be thus considered during the present academic year: hematopoietic system, kidney, cardiovascular system, respiratory system, gastro-intestinal system, endocrine system and nervous system. The pathology of the eye, oral cavity and vitamin deficiencies are covered in collaboration with other departments of the University.

Courses in parasitology and neuropathology are given separately by the respective departments but under the nominal jurisdiction of this department. The course in clinical pathology is under the direction of the Department of Medicine and is part of the integrated course "Pathologic Physiology."

Lectures and laboratory work. Dr. HERTIG and Associates.

TROPICAL PUBLIC HEALTH

The following course is given by members of the Faculty of the Harvard School of Public Health.

THOMAS H. WELLER, M.D., LL.D., *Richard Pearson Strong Professor of Tropical Public Health and Head of the Department.*

PARASITOLOGY A. *Second Year.* — The important helminth and protozoan parasites of man are considered with reference to their geographic distribution, identification, mode of transmission, pathogenesis, immune reactions and methods for prevention and control. Clinical aspects and chemotherapy of parasitic diseases are discussed. Emphasis is given to methods of laboratory diagnosis.

Lectures, demonstrations, and laboratory work. Dr. WELLER and Associates.

NEUROLOGY AND PSYCHIATRY

RAYMOND D. ADAMS, M.D., *Bullard Professor of Neuropathology and Head of the Department of Neurology at the Massachusetts General Hospital.*

DEREK E. DENNY-BROWN, DR. PHIL., M.D., *James Jackson Putnam Professor of Neurology and Head of the Department at the Boston City Hospital.*

JACK R. EWALT, M.D., *Bullard Professor of Psychiatry and Head of the Department at the Massachusetts Mental Health Center.*

ERICH LINDEMANN, DR. PHIL., M.D., *Professor of Psychiatry and Head of the Department of Psychiatry at the Massachusetts General Hospital.*

PSYCHIATRY A. *First Year.* — Normal Growth and Development. Introduction to the development of the human personality. The course reviews the understanding of the human being, whether sick or well. The lectures deal with the development of the human personality in the setting of the family and the culture from infancy through childhood and adolescence to maturity and aging. Emphasis is laid upon the adjustment of normal personality types to various crises situations, the influence of anxiety and the significance of unconscious forces. Members of the psychiatric staff participate in the clinics designed to relate material of their course in the first year to problems of human development and variation.

Lectures and discussion groups. Dr. LINDEMANN and Associates.

PSYCHIATRY B. *Second Year*.—The second year consists of lectures in abnormal growth and development to develop further concepts of psychological functioning. Emphasis shifts to the nature and genesis of abnormal psychological mechanisms which result from individual, social and physical factors and are manifested in symptoms and behavioral disturbances. Additional hours are given to introduce methods of history-taking and examination of patients designed to understand more fully socio-emotional factors in illness. The course includes lectures and clinical instruction in sections of four students on wards of the general hospitals. Four three-hour sections are given in cooperation with physical diagnosis. Members of the Psychiatry Department participate in laboratory periods organized for the study of organ systems as part of the integrated teaching program.

Lectures and section teaching. Dr. LINDEMANN and Associates.

NEUROLOGY A. *Second Year*.—Clinical lectures are given at the Boston City Hospital and at the Massachusetts General Hospital to the entire class. The object of the course is to give the student a general knowledge of the principles of diagnosis of diseases of the nervous system.

Clinical lectures. Drs. DENNY-BROWN and ADAMS.

NEUROPATHOLOGY A. *Second Year*.—The course consists of lectures, laboratory work, and demonstrations. The lectures introduce concepts of value in neurology and psychiatry. Microscopical and gross specimens are studied.

Lectures and laboratory work. Dr. ADAMS and Associates.

PHARMACOLOGY

OTTO KRAYER, M.D., M.D. (hon.), *Charles Wilder Professor of Pharmacology and Head of the Department*.

PAUL L. MUNSON, PH.D., *Associate Professor of Pharmacology in the School of Dental Medicine*.

PHILIP F. HIRSCH, PH.D., *Associate in Pharmacology in the School of Dental Medicine*.

HERBERT WELLS, D.M.D., *Associate in Pharmacology in the School of Dental Medicine*.

PHARMACOLOGY A. *Second Year.*—The course in pharmacology consists of lectures, demonstrations, experimental laboratory exercises and conferences. Concepts of general importance in pharmacology and toxicology are presented and the opportunity is provided for students to become acquainted with important drugs. Emphasis is placed on those actions of pharmacological agents which help in understanding the disordered physiology of disease and which are of importance in the rational treatment of disease. The mode of action of important drugs is discussed. In the laboratory, the student is able to become acquainted at first hand with some of the experimental facts, obtained from studies on man and animals, which provide the starting points for the analysis of pharmacological effects.

Lectures, laboratory work, and conferences. Dr. KRAYER and Associates.

MEDICINE

WALTER BAUER, M.D., *Jackson Professor of Clinical Medicine and Head of and Department at the Massachusetts General Hospital.*

WILLIAM B. CASTLE, M.D., S.M. (hon.), M.D. (hon.), S.D. (hon.), *George Richards Minot Professor of Medicine and Head of the Department at Boston City Hospital.*

GEORGE W. THORN, M.D., LL.D. (hon.), S.C.D. (hon.), DR. OF MED. (hon.), *Hersey Professor of the Theory and Practice of Physic and Head of the Department at the Peter Bent Brigham Hospital.*

PAUL C. ZAMECNIK, M.D., *Collis P. Huntington Professor of Oncologic Medicine and Director of the J. Collins Warren Laboratories of the Huntington Memorial Hospital.*

EARLE M. CHAPMAN, M.D., *Assistant Clinical Professor of Medicine.*

Affiliated:

DAVID WEISBERGER, D.M.D., M.D., *Professor of Dental Medicine.*

MEDICINE A. *Second Year.*—During the second half of the second year, the Department of Medicine in cooperation with the Departments of Pathology, Pharmacology, Surgery and others participates in the teaching of pathologic physiology. The course provides an integrated approach to understanding the basic principles of disease and includes intensive instruction in laboratory methods. Accompanying the instruction in pathologic physiology, a course is given in the

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study of the patient by history taking and physical examination. For this instruction, the students are divided into small groups and assigned to the four general hospitals.

Lectures and laboratory work. Drs. FREIMAN (Department of Pathology), CHAPMAN and Associates.

SURGERY

HENRY K. BEECHER, M.D., *Henry Isaiah Dorr Professor of Research and Teaching in Anaesthetics and Anaesthesia.*

FRANCIS D. MOORE, M.D., *Moseley Professor of Surgery and Head of the Department at the Peter Bent Brigham Hospital.*

PAUL S. RUSSELL, M.D., *John Homans Professor of Surgery and Head of the Department at the Massachusetts General Hospital.*

SURGERY A. Second Year.—The course is designed to correlate pre-clinical sciences with the basic principles underlying the surgical management of injury and disease. The Department of Surgery joins with the Department of Medicine in a series of exercises in physical diagnosis and laboratory medicine to offer unified instruction in case taking. Practical exercises are offered that introduce the student to basic surgical techniques.

Lectures and demonstrations on the fundamental aspects of clinical surgery and anaesthesia. Section work, case taking, lectures and demonstrations on the physical diagnosis of surgical diseases in conjunction with the Department of Medicine. Drs. BEECHER, MOORE, RUSSELL, and Associates.

OBSTETRICS AND GYNECOLOGY

DUNCAN E. REID, M.D., *William Lambert Richardson Professor of Obstetrics and Head of the Department.*

Second Year.—Lectures covering aspects of the physiology of reproduction. Dr. REID and Associates.

PEDIATRICS

CHARLES A. JANEWAY, M.D., *Thomas Morgan Rotch Professor of Pediatrics and Head of the Department at the Children's Hospital.*

PEDIATRICS A. *Second Year.* — Lectures are given during the second year to familiarize the students with the study of children before they come into contact with patients. In this series are discussed the physiological readjustments of neonatal life, the care of the well child, and the history and physical examination of the sick child.

Clinical lectures. *Second half-year.*

PREVENTIVE MEDICINE

DAVID D. RUTSTEIN, M.D., *Professor of Preventive Medicine and Head of the Department.*

THEODORE COLTON, S.D., *Research Associate in Preventive Medicine.*

QUANTITATIVE METHODS IN MEDICINE. *Second Year.* — An introduction to statistical reasoning in the evaluation of data is offered as part of the course entitled "Growth and Development." The statistical teaching includes a description of the types of data encountered in the medical literature, elementary probability theory, problems of sampling and the logical basis for drawing conclusions from evidence.

Lectures and laboratory work. Dr. COLTON and Associates.



TEACHING CLINIC AT HARVARD SCHOOL OF DENTAL MEDICINE

Division of Studies for the Third and Fourth Years

THIRD YEAR			FOURTH YEAR		
	Lectures, Lab or Demon- stration	Clinic		Lectures, Lab or Demon- stration	Clinic
Dental anatomy	45	—	Dental medicine	13	—
Genetics and anthro- pology	16	—	Clinical clerkship, Massachusetts General Hospital	—	60
Introduction to dental research	24	—	Dental Medicine, Peter Bent Brigham Hospital	—	15
Fundamentals of oc- clusion	32	—	Oral diagnosis	13	60
Nutrition	12	—	Endodontics	10	30
Oral histopathology . .	70	—	Operative dentistry . .	36	118
Public health dentistry	32	9	Oral surgery and anaesthesia	32	40
Dental medicine	16	—	Boston City Hospital	—	15
Dental medicine, Massachusetts General Hospital	—	4	Orthodontics	24	126
Oral diagnosis	16	52	Pediatric dentistry at the Children's Hos- pital	—	35
Endodontics	10	20	Periodontics	8	72
Operative dentistry . .	120	160	Prosthetic dentistry Complete denture prosthesis	10	103
Oral hygiene and prophylaxis	18	20	Removable denture prosthesis	10	90
Oral surgery	—	3	Fixed partial pros- thesis	97	196
Oral surgery, anaesthesia	8	—	Psychosocial problems in dentistry	20	—
Orthodontics	68	120	Radiology	8	20
Pediatric dentistry . .	12	20	Student research and seminar	75	—
Periodontics	32	96	Patient management .	16	—
Prosthetic dentistry Complete denture prosthesis	90	144	Practice management and dental juris- prudence	6	—
Removable partial prosthesis	42	72			
Psychosocial problems in dentistry	10	—			
Radiology	12	10			
Student research and seminar	75	—			

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The tabulated hours overleaf indicate the approximate allotment of time for the third and fourth academic years in the School of Dental Medicine.

As the entering classes are limited, it is possible to reduce the time usually involved in formal courses relating to dental techniques. Individual instruction, demonstrations, seminars and conferences replace the traditional lecture system to a large degree.

A recently initiated program to instruct third and fourth year students in effective use of ancillary dental personnel provides experience for each student in the performance of clinical procedures with the aid of a trained dental assistant or hygienist. Auxiliary personnel are also utilized to relieve the student of a variety of routine but time-consuming tasks.

Dental Anatomy — 1st semester, 3rd year. Assistant Professor VAN LEEUWEN and Dr. OAKS.

Instruction in dental anatomy and tooth morphology. Special emphasis is placed on individual tooth form and the relationship of the tooth to adjacent teeth, opposing teeth and supporting tissue. Technique practice in reproduction of tooth form is stressed using natural extracted teeth.

Genetics and Anthropology — 1st semester, 3rd year. Assistant Professor HUNT.

Lectures are given with the purpose of reviewing the principles of genetics, including studies of populations. A brief survey of anthropology is given with major emphasis on evolutionary changes in the head. Dental implications are stressed throughout the course.

Introduction to Dental Research — 1st semester, 3rd year. Drs. WELLS, MUNSON and Associates.

A series of ten or more one-hour lectures on specific research projects available for student participation in the research laboratories of the School of Dental Medicine.

Fundamentals of Occlusion — 3rd year. Associate Clinical Professor M. COHEN, Dr. EPSTEIN and Associates.

This course represents a combined effort of many disciplines to provide basic information on the stomatognathic system as a background for an understanding of occlusion. Lectures include such

areas as embryology and growth and development of the face and dentition; anatomy and physiology of the temporomandibular articulation and facial musculature; relationship of the jaws and teeth in both functional and non-functional movements; comparison of natural and artificial dentitions.

Nutrition — 3rd year. Associate Professor SHAW.

Discussion of relations of nutrition to the development, maturation and maintenance of the oral tissues. Discussion of nutritional requirements, relative values of various foods and the preparation of diet histories. Clinic practice in the evaluation of diet histories and in the development of suitable recommendations for the patient.

Oral Histopathology — 3rd year. Associate Professor GOLDHABER; Drs. ALBRIGHT, NALBANDIAN, STERN and ZACKIN.

The course consists of weekly two-hour sessions composed of lectures, laboratory and student reports on the literature. The subject matter includes the histology and pathology (light microscopy and electron microscopy) of teeth and pulp, periodontium, oral mucosa, salivary glands and bone. Attempts are made to correlate the microscopic picture with the clinical findings. Emphasis is placed on experimental pathology.

Public Health Dentistry — 3rd year. Assistant Professor DUNNING; Dr. WELLOCK; Drs. LEAVELL, MACMAHON, PAUL and SCHMIDT from the School of Public Health.

Public Health principles and practices with emphasis on the participation of the dentist. Elements of biostatistics and epidemiology. Lectures, seminars and field trips.

Dental Medicine — 3rd and 4th years. Professor WEISBERGER; Drs. TRIEGER, WYSHAK, BOOTH, CHRISTMAN, ROSENBERG and OAKLEY.

A course devoted to the diagnosis and treatment of oral diseases, i.e., diseases of the periodontium, dental pulp, oral mucosa and other oral structures together with their correlation to systemic conditions. Lectures, seminars, clinical practice and observation are given both in the Dental Infirmary and at the Massachusetts General Hospital. Assignments in Dental Medicine are also made at the Peter Bent Brigham Hospital.

Infirmary procedures, identification of oral structures, methods of

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oral examination, history taking, and common methods of diagnosis for dental and oral disease are given in both years, supplemented by practice in the general clinic.

In the third year the clinical and pathological presentation of pulpal-periapical disease is integrated with the teaching of oral pathology. In this manner the student achieves an early appreciation of the pathological course of events and the clinical symptoms which necessitate endodontic therapy. Clinical demonstrations and laboratory technique exercises are given on bacteriological culturing, biomechanical debridement and canal obturation techniques preceding the assignment of patients for clinical experience.

In the fourth year, diagnostic conference and clinical experience involving conservative root canal therapy and the indications and application of periapical surgery round out the student's introduction to the field.

Operative Dentistry — 3rd and 4th years. Associate Professor G. E. THOMPSON and Assistant Professor VAN LEEUWEN; Dts. BRDEVOLD, ETHERINGTON, O'NEILL, ADAMS, BAILEY, C. COHEN, HAYNES, MATUSOW, OAKS and C. W. THOMPSON.

Early student-patient contact and immediate clinical application of learned technical procedures are emphasized. In the third year instruction is given in oral hygiene, accepted methods of dental prophylaxis and technique of cavity preparation in conjunction with a study of the various types of restorative materials.

In the fourth year gold foil technique is given, new operative procedures introduced, and clinical practice in all phases of operative dentistry is continued.

Oral Surgery — 3rd and 4th years. Professor WEISBERGER; Dts. GURALNICK, DEWILDE, BOOTH, CHRISTMAN, LINCOLN and MINER.

The students are taught through lectures and seminars the principles of surgery as applied to exodontia, minor oral surgery, maxillo-facial surgery and fractures and anaesthesia.

Individual clinical instruction in exodontia, minor oral surgery and anaesthesia is given at the Dental Infirmary.

In the fourth year students are assigned to the Massachusetts General Hospital as clinical clerks on the Dental Service. At the hospital more extensive surgery of the oral cavity including traumatic injuries to the face and jaws is observed. The student takes active part in the

study and treatment of such cases. Additional training in oral surgery is made available at the Boston City Hospital.

Orthodontics — 3rd and 4th years. Associate Clinical Professor M. COHEN; Drs. MOORREES, SWANSON, ROTHBLATT, BINDER and ROSENTHAL.

Clinical instruction consists in the observation of developing dentures, the use of preventive measures, and the use of selected orthodontic treatment procedures by each student. Emphasis is placed on the development of sound clinical judgment as a basis for the selection and care of orthodontic patients within the scope of general practice. Opportunity is provided for experience beyond the required minimum for those students with special interest and ability. Discussions and demonstrations supplement the work of the clinic. Each student is required to present a paper in seminar during his junior year and in the last semester of the senior year each student is responsible for the presentation of one or more cases he has treated during his clinical years. In addition to lectures on growth and development, mechanotherapy, and tissue response to tooth movement, lectures and demonstrations are given in cephalometrics, cleft palate, and surgical orthodontics. Observation of a great variety of orthodontic treatments is provided at The Children's Medical Center.

In 1963-64, patients will be obtained from the Forsyth Dental Infirmary while the cleft palate clinic of The Children's Medical Center will collaborate in the teaching efforts.

Pediatric Dentistry — 3rd and 4th years. Associate Professor LOSCH; Drs. HOOVER and BUDDE.

Lectures and demonstrations introduce the subject in the third year with emphasis on the physical and psychological development of the child. In the general clinic, the student, under supervision, practices routine dental care for children and learns principles of patient and parent instruction in oral hygiene and personal caries control measures.

In the fourth year, the student continues practice in pediatric dentistry in the general clinic. In addition, he visits The Children's Medical Center where, under the guidance of the dental staff, he views those conditions of both in- and out-patients best seen in a hospital atmosphere. Special consideration is given to those patients whose systemic disease includes oral manifestations. Individually, he observes the staff at dental operations performed in the main operating

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rooms of the hospital. Ward rounds by the dental staff are given regularly. Students attend the clinico-pathological conferences and are assigned to other teaching exercises given by the general staff of the hospital.

Periodontics — 3rd and 4th years. Associate Professor GOLDBABER; Drs. EPSTEIN, SOCRANSKY, NALBANDIAN, STERN and ZACKIN.

The student is taught to recognize and diagnose periodontal disease and to comprehend its pathogenesis. He is expected to understand the role of local etiological factors as well as the part played by systemic disease in modifying tissue response to local irritations.

With regard to therapy, emphasis is placed on the elimination of local factors and the institution of preventive procedures. In addition, he is taught the principles of occlusal equilibration and splinting of loose teeth. All students are required to perform periodontal surgery.

Prosthetic Dentistry — 3rd and 4th years. Assistant Clinical Professors EHRLICH and FARRELL; Drs. ATWOOD, FISHMAN, GOLD, SAMAHA and TAYLOR.

Prosthetic dentistry which includes complete, fixed and removable prosthesis is taught in the third and fourth years. Through lectures, conferences and demonstrations the student receives clinical and laboratory instruction in the anatomy and physiology of the mouth as it applies to prosthetic dentistry, and in the materials and techniques of prosthetic restoration directed toward oral health, function and aesthetics. Every effort is made to provide early clinic contacts and to teach techniques on clinic cases. The high teacher-student ratio, small classes, and special physical facilities favor this type of instruction.

Psychosocial Problems in Dentistry — 3rd and 4th years. Drs. GIDDON, HUNT and TRIEGER of the School of Dental Medicine; Drs. BALDWIN, HACKETT, KRAVITZ, ORNE, SHOR, BUSFIELD and GUSTAFSON of the Medical School, and Dr. KING of the University Health Services.

A lecture and seminar series focusing on those aspects of psychiatry, psychology, and sociology which are important to the practice of dentistry. Topics to be covered are: the dentist in society, dentist-patient relationship, the meaning of dental procedures to the patient, the significance of dento-facial deformities, recognition of behavior

pathology, management of problem patients, oral habits, "psychosomatic" dental disorders, non-organic factors in pain, theoretical and practical aspects of hypnosis, psychophysiology of the oral cavity, and research methodology. Case presentations of clinic patients will supplement these discussions.

Radiology — 3rd and 4th years. Dr. DEWILDE.

Principles of applied roentgenology and the interpretation of radiographs, with consideration of the electro-physical basis of roentgenology, are covered in the third year. Practice in radiological technique and interpretation is given in both years.

Research Project — 3rd and 4th years. Associate Professor MUNSON; Drs. BRDEVOLD, GREEP, IRVING, WEISBERGER, M. COHEN, GOLDBERGER, SHAW, GURALNICK, HUNT, ALBRIGHT, GIBBONS, HIRSCH, SOCRANSKY, SWANSON, WELLS, WYSHAK, AMDUR, ARMSTRONG, NALBANDIAN, WUTHIER and GIDDON.

In order to gain a more realistic appreciation of the nature of scientific research, all students of the Harvard School of Dental Medicine, as a requirement for graduation, participate in a laboratory or clinical investigation of their own choosing. By the end of the first semester of the third year, after completion of the course, Introduction to Dental Research, the student has chosen a research supervisor from the faculty and the subject to be investigated. He presents a plan for his research project in the form of a seminar at the beginning of the second semester. During the rest of the third year, and in some cases during the summer months, he attempts to master the techniques necessary for his work. During the fourth year, with the advice and aid of the faculty research supervisor, the project is carried forward, and at the end of the year, the student presents a seminar summarizing his results. Both the third- and fourth-year seminars are also required in written form for permanent reference in the Library.

Patient Management: Pharmacological and Psychological Aspects — 4th year. Drs. TRIEGER and GIDDON; Drs. MUNSON and HIRSCH; Drs. V. MARK, FLACKE, FEDERMAN, M. SWARTZ, M. ALPER of the Medical School; Dr. J. MURPHY of the Massachusetts General Hospital.

Practical pharmacological and psychological recommendations are considered in the management of the dental patient. The use of the

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more important classes of drugs is discussed in the context of the total patient. The doctor-patient relationships and other psychological aspects of management are presented in conjunction with the fourth year course, Psychosocial Problems in Dentistry.

Practice Management and Dental Jurisprudence—2nd semester, 4th year. Dr. DUNNING; Dr. FORD from the Medical School.

Lectures and seminars on practice management, ethics and jurisprudence.

Surgical Anatomy of the Head and Neck—4th year elective offered to selected students for two full weeks in February. Assistant Clinical Professor GURALNICK and Dr. EDWARDS from the Medical School.

The course is designed primarily to enable the student through his own dissections to gain knowledge of the anatomy of operative oral surgery.

The first week is spent in doing eight regional dissections. The second week is devoted to performing specific surgical procedures with emphasis on anatomical dissection. The laboratory exercises are supplemented by lectures and by the use of motion pictures.

Eligibility for admission is determined by the Fourth Year Promotion Board to whom application should be made by letter prior to December first of the senior year.

Courses Offered to Medical Students by the School of Dental Medicine

Opportunities for voluntary and elective work are available at the School of Dental Medicine for third and fourth year medical students. Course material will be designed to meet individual needs where possible. Instruction will be on a tutorial basis. Make all inquiries at the Dean's Office, School of Dental Medicine.

30. *Diagnosis of Oral Diseases*. Dr. WEISBERGER and Associates. November and December, Monday through Friday 10 A.M. to noon at the M.G.H. Dental Clinic. Open to third and fourth year students as a voluntary course. Limited to three students.

Course for Dental Graduates

The following course is given in cooperation with the Committee on Courses for Graduates of the Faculty of Medicine.

Dental Medicine 1. Dr. ROY O. GREEP and Associates.

This course is designed for dental teachers, foreign students of special ability, and others who wish to combine clinical study with elective research in the laboratories of the School. Only a very small number of students will be admitted. Curriculum will be designed to meet individual needs and the entire facilities of the School may be utilized. Tuition will be at the rate of \$1500 annually.

Four or eight months, October through January and/or February through May; daily, all day, except Saturday afternoons. Attendance limited.

Students 1962-1963

FOURTH YEAR CLASS (1963)

- Bailey, Nelson Edgar, A.B. (*Susquehanna Univ.*) 1957. Selinsgrove, Pa.
 *Dogon, Israel Leon (*Univ. of Witwatersrand*). [*Univ. of London Royal Coll. of Surgeons*]. Allston
 Evans, Robert Edgar, A.B. (*Hamilton Coll.*) 1959. Leonardsville, N. Y.
 Gamm, Stephen Harvey, A.B. (*Brandeis Univ.*) 1959. Milton
 Goldin, Joel, A.B. (*Amherst Coll.*) 1959. Yonkers, N. Y.
 Kaufman, Elias Jacob, A.B. (*Cornell Univ.*) 1959. Brooklyn, N. Y.
 Kushnir, Harry, A.B. 1959. Newton Centre
 *Lear, Clement Samuel Cope (*Canterbury Coll.*). [*Univ. of Otago Dental School*]. Boston
 McLeod, Hugh Stanford, A.B. (*Reed Coll.*) 1957. Kansas City, Mo.
 O'Connor, John Edmond, A.B. (*Boston Coll.*) 1959. Jamaica Plain
 Valente, Louis John (*Northeastern Univ.*) Milford

THIRD YEAR CLASS (1964)

- Carlin, Richard Thomas, A.B. (*Clark Univ.*) 1960. Tarrytown, N. Y.
 Falla, William Stinson, S.B. (*Boston Coll.*) 1960. Harwichport
 *Hodge, Archibald Talbot, A.B. (*Amherst Coll.*) 1958. [*Univ. of Rochester School of Medicine*]. Rochester, N. Y.
 Poczatek, Zygmunt Walente, S.B. (*Boston Coll.*) 1960. New Bedford
 Stark, Lawrence Wendell, A.B. (*Duke Univ.*) 1953. Jamaica Plain

SECOND YEAR CLASS (1965)

- Beck, Robert Lee, A.B. (*Univ. of Virginia*) 1958. San Diego, Calif.
 Bleil, Bruce Thompson, A.B. (*Rice Univ.*) 1961. Houston, Texas
 Davidson, William Martin, A.B. (*Dartmouth Coll.*) 1960. Winthrop
 Garant, Philias Roy, S.B. (*Tufts Univ.*) 1958. Fall River
 Gordon, George David, A.B. (*Bowdoin Coll.*) 1961. Belmont
 ‡Harden, Lewis Brown (*Iowa State Teachers Coll.*) Cedar Falls, Iowa
 Manasek, Francis John, A.B. (*New York Univ.*) 1961. Bronx, N. Y.
 Mull, John Dennis, A.B. 1960. Braintree
 Pekruhn, Richard Barnhill, A.B. (*Oberlin Coll.*) 1961. Steubenville, Ohio
 Suskin, William Howard, A.B. (*New York Univ.*) 1947. Hewlett, N. Y.
 Williston, William Curtis, S.B. (*Coll. of the Holy Cross*) 1957. Springfield

FIRST YEAR CLASS (1966)

Atikian, Hrair, A.B. (<i>New York Univ.</i>) 1962.	Boonton, N. J.
Binder, Robert Edward, B.S. (<i>Northeastern Univ.</i>) 1960.	Medford
Bowen, Charles Raymond, A.B. (<i>Susquehanna Univ.</i>) 1962.	Selinsgrove, Pa.
Clausen, Jack Lewis, S.B. (<i>Stanford Univ.</i>) 1961.	Hollywood, Calif.
‡Cotmore, John Mason (<i>Temple Univ.</i>)	London, England
Gettleman, Lawrence Marvin, A.B. (<i>Rutgers Coll.</i>) 1962.	Miami Beach, Fla.
Gracia, Robert Manuel, A.B. (<i>Coll. of Holy Cross</i>) 1962.	New Bedford
Mulvihill, James Edward, A.B. (<i>Coll. of the Holy Cross</i>) 1962.	Wethersfield, Conn.
Perkell, Joseph Shaile, S.B. (<i>Massachusetts Inst. of Technology</i>) 1962.	Coral Gables, Fla.
Robinson, Jiles Leslie, Jr., A.B. 1962.	Washington, D. C.
Siegel, Carl Leonard, A.B. (<i>Lafayette Coll.</i>) 1962.	New York, N. Y.
Stanley, Robert Louis, A.B. (<i>Coll. of the Holy Cross</i>) 1962.	Brooklyn, N. Y.
Wing, Kenneth Richmond, A.B. (<i>Wesleyan Univ.</i>) 1962.	Cranston, R. I.

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* Transferred to third year class.

‡ Admitted on basis of three years' college work.

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AERIAL VIEW OF THE HARVARD MEDICAL-DENTAL AREA: SCHOOL OF DENTAL MEDICINE (RIGHT CENTER); MEDICAL SCHOOL (LEFT)

ACADEMIC CALENDAR FOR 1963-64

<i>Thursday, July 4</i>	Independence Day: a holiday
<i>Monday, September 2</i>	Labor Day: a holiday
<i>Friday, September 13</i>	Registration for 1st and 2nd year classes
<i>Monday, September 16</i>	Registration for 3rd and 4th year classes <i>Academic year begins for all classes</i>
<i>Saturday, October 12</i>	Columbus Day: a holiday
<i>Monday, November 11</i>	Veterans' Day: a holiday
<i>Thursday, November 28</i>	Thanksgiving Day: a holiday
<i>December 22, 1963- January 5, 1964 (inclusive)</i>	Recess for all classes
<i>Monday, January 13</i>	Second half year begins for 2nd year class
<i>February 3-7</i>	Examination period for 1st year class
<i>Monday, February 10</i>	Second half year begins for 1st year class
<i>Saturday, February 22</i>	Washington's Birthday: a holiday
<i>Friday, March 27</i>	Last day for receiving applications from candidates for the D.M.D. degree in June, 1964
<i>March 29-April 5</i>	Recess for 3rd and 4th year classes
<i>April 12-19</i>	Recess for 1st and 2nd year classes
<i>Saturday, May 30</i>	Memorial Day: a holiday Class Day for the Class of 1964
<i>June 1-6</i>	Examination period for 2nd year class
<i>Monday, June 8</i>	Second half year ends for 1st year class
<i>Thursday, June 11</i>	Commencement

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HARVARD MEDICAL LIBRARY-BOSTON MEDICAL LIBRARY

